

ABSTRACT

Conventional perpendicular writers that utilize an extended return pole are subject to large flux leakage. This problem has been reduced in the prior art by adding a downstream shield. This still leaves significant upstream leakage. This has now been eliminated by adding an upstream shield and then connecting the up and downstream shields by means of side shields. The latter need not extend all the way from the downstream to the upstream shield in which case their thickness is increased relative to the full side shields.